

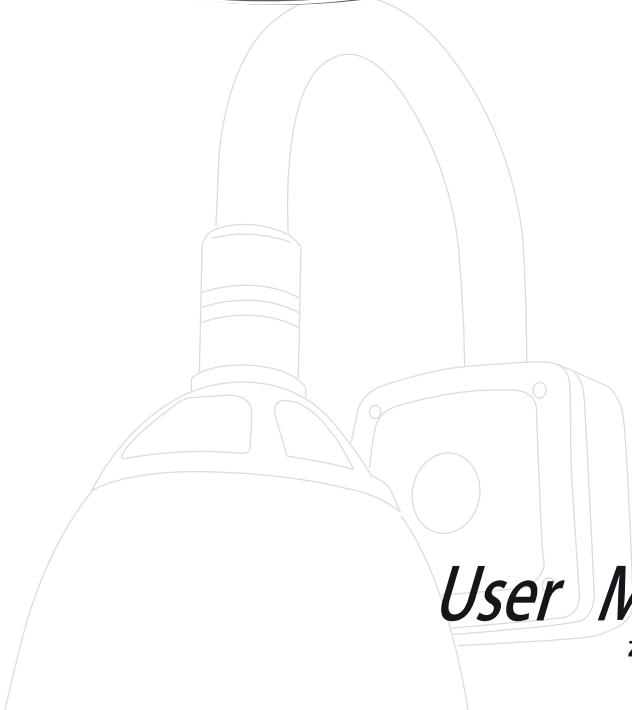


Now you can see!

Ultra-Z

INTELLIGENT IR PTZ CAMERA

www.provisionisr.com

A faint line drawing of the Ultra-Z camera is positioned in the background. It shows the camera body with a lens, a mounting bracket, and a cable extending from the top.

User Manual

Z-22IR/ Z-27IR

Package Contents:

Item	Qty.
Z-22/27 IR PTZ	1
Wall Bracket	1
Hinge Pin	1
Rubber Seal	1
DC12V/5A power supply	4
Wall Screws	4
PM8*25 socket head screws	1
Allan Key	1
User Manual	

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1 General Instructions:

1.1 Safety Instructions:

- ◆ Make sure to read the user manual before using the product.
- ◆ Always follow national and local safety codes during the installation.
- ◆ Only qualified and experienced person can carry this installation and maintenance.
- ◆ Use reliable tools, not complying can result in serious injury.
- ◆ Make sure that the environmental conditions meet the installation requirements for this product.
- ◆ Please check the space and toughness of the site before installing. It should be able to bear 4 times the weight of the dome and its accessories.

1.2 Warnings:

- ◆ Do not install this speed dome in hazardous places where combustible or explosive materials are stored or used.
- ◆ Do not install on platform that suffers from constant vibrations.
- ◆ Make sure no object or fluid substances get inside the unit.
- ◆ This speed dome runs on DC 12V, do not connect it to higher or lower voltage.
- ◆ Do not turn power on before installation is complete.
- ◆ Do not disassemble any part of the items.
- ◆ Use soft towel to clean the down cover when necessary, do not use caustic detergent.
- ◆ To protect CCD, avoid facing the camera directly into strong light.
- ◆ To prevent damage, do not drop the unit or allow to strong shocks or vibrations.
- ◆ Make sure no object is blocking the unit's full range of motion.

2 Features:

2.1 Product Picture:



2.2 Product Features

- ◆ Alarm I/O.
- ◆ Adaptive PELCO-P/D protocol.
- ◆ Adjustable IR illumination.
- ◆ Memory recall.
- ◆ Real-Time-Control: call any functions at any time.
- ◆ Up to 8 privacy masks.
- ◆ Support 128 preset positions.
- ◆ English OSD menu, user friendly for smooth operation.
- ◆ Proportional zoom.
- ◆ Auto flip function.
- ◆ Built in lightning proof and surge proof.
- ◆ Advanced step motor: Less heat, Smooth movement, No-shaking.
- ◆ Efficient heating device, ensure to work in -20°low temperature.
- ◆ Support 4 groups cruise scan (27 presets/group), 4 group patterns, one scan, and 360°continuous scan and 360° intermittent scan.
- ◆ IR lights automatically adjust the light intensity according to the zoom

speed to reduce the dark angle and flashlight effect.

- ◆ The upper dome adopts 7" aluminum alloy structure for better magnetic shield and heat radiation.
- ◆ The underpart dome adopts full metal class points bin type design for fast heat dissipation and anti-mist, non-interference light source images and long life span IR light.

2.3 Specifications:

Power Supply	Input: AC100~240V 50/60Hz Output: DC12V±5%, 5A
Max. Power Consumption	IR off: 15W IR on: 31W
Sync system	Internal Sync
Language	English
Pan Speed	0.08°~240°/S
Tilt Speed	0.08°~240°/S
Pan Range	0°~360°(Continuous)
Tilt Range	0°~90° (180° auto flip)
Preset	128
Preset Accuracy	<±0.1°
Tour	4, 27 presets/tour
Pattern	4
Zone	1
Protocol	RS485
Communication	PELCO-D/P auto detected
Baud Rate	2400bps、4800bps、9600bps、19200bps
Address	1-255 (By DIP Switch or Software)

RTC	Set any functions at any time
IR Light switch	Superpower LED: Default: Zoom x1~5: open the near-distance IR lights; Zoom x6~9: open the near-distance and middle-distance IR lights; Zoom >x10: turn off the near-distance IR lights, open the middle-distance and far-distance IR lights.
Work Temperature	Indoor: 0°C~+50°C; Outdoor : -20°C~+50°C (with heater)
Work Humidity	<90%

3 Installation Site Preparations:

3.1 Tool List:

- | | |
|-------------------------|--------------------------|
| (1) Screws* | (2) Monkey wrench |
| (3) Philips screwdriver | (4) Straight Screwdriver |
| (5) Wire stripper | (6) Socket head wrench |
| (7) Electric drill | (8) Hammer |
| (9) BNC connector | (10) BNC Clamp |

*Included in the kit

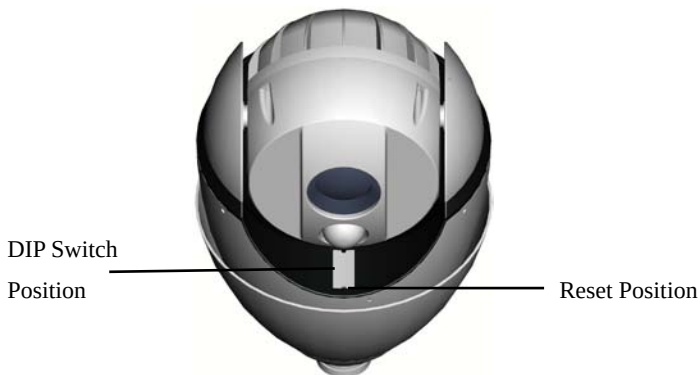
3.2 Installation Preparation:

- (1) Check the space and toughness of the site and make sure that the environmental conditions meet the installation requirements for this product.
- (2) The installation surface should be able to bear 4 times the weight of the PTZ and its accessories.

3.3 DIP Switch Setting:

(1)Default Settings: Pelco P/D (auto-detected), baud rate: 2400, address: 1.

Use Philips screwdriver to remove the DIP switch cover (see location below)



(2)Baud Rate Setup

Decoder Switch: 9~10 (1=ON, 0=OFF)

Switch 9-10 setting		Baud Rate	Max transmission distance(M)
9	10		
0	0	2400BPS	1800
1	0	4800BPS	1200
0	1	9600BPS	800
1	1	Auto detected 2400、4800、9600、19200BPS	600-1800

(3) When the DIP Switch 9th and 10th are ON, the PTZ can automatically detected the baud rate 2400, 4800,9600,19200

(4) Hardware Address Setup*: Please refer to Appendix I.

***Please note that the address setting can also be configured via the software using the camera OSD (Page 11).**

4 Setup of the OSD Menu:

4.1 Display Boot-UP Info.

Before installation please check the protocol, baud rate, address and RS485 data cable. Default protocol: PELCO-D, address: 1, baud rate: 2400.

```
PROTOCOL: PELCO P D
BAUD RATE: 2400BPS
CAMERA ID: 001
CAMERA S/N: 0000000001
MODEL:  -----
VERSION: V1.02
FAN SPEED: 6000RPM
STARTING... ..
```

When starting, the PTZ will display the following information:

```
Level self-check: Success
Vertical self-check: Success
Camera type: ####

Success
```

Once done, the above information will disappear and the user will gain control over the camera.

4.2 Enter the OSD Menu:

While the camera is in standby condition, call preset 95 (“Call” + 95 + “Enter”) in order to display the main menu. Use the Up/Down direction to select item or start the configuration. Use the Right key to confirm and left key for exit the current setting.

The Main menu as follows:

SYSTEM
LENS
CAMERA
PAN/TILT
AUTO RUNNING
PRIVACY MASK
ALARM
LANGUAGE
IR SET
EXIT

4.3 SYSTEM Menu:

<Main Menu> → <SYSTEM>

SITE INFO
DISPLAY SETUP
BOOTUP SCREEN
PASSWORD
SET DEFAULT
SYSTEM REBOOT
RTC TIME SET
RTC TIMER RUNNING
BACK
EXIT

System info includes following settings.

- < SITE INFO>: In this menu the user can setup the dome's name, View the Hardware address, change the camera software address and choose the leading command (Hardware or Software).
- < DISPLAY SETUP >: In this menu the user can choose which details will display on the camera Screen. The available options are: Site name, Preset title, Pattern name, Zoom, Orientation, Temperature, Zone name and RTC time.
- <DISPLAY BOOT-UP INFO>: User can view the boot information.
- <PASSWORD >: User can setup or change menu access password.
- <SET DEFAULT>: All settings will go back to factory default. Preset positions will be retained.
- <SYSTEM REBOOT>: After change dome ID or adjust deviation between two preset positions, user this to remotely reboot the system.
- <RTC TIME SET>: Set the present date and time.
- <RTC TIMER RUNNING>: Schedule actions for specific date and time.

4.3.1 SITE INFO

NAME: GXAAF DOME: 001	
DOMES ID OPT:	SOFT
SOFTWARE ID:	001
HARDWARE ID:	000
BROADCAST ID:	255
BACK	
EXIT	

<Main Menu> → <SYSTEM> → <SITE INFO >

- **<NAME>**: The title name of the dome. Assigning a name to a dome helps the user to identify which dome is under control for multiple domes site. Max 16 digits Setting with number from 0~9 and letter from A~Z. Move the cursor to **<SITE ID>** and then move the joystick right to enter dome ID setting,
- **<DOME ID OPT>**: Setting the address method that controls the dome, user can choose from **SOFT** (Software) and **HARD** (Hardware).
[SOFT]: when choose this, the **SOFTWARE ID** is effective while the **HARDWARE ID** is ineffective.
[HARD]: when choose this, the **HARDWARE ID** is effective while the **SOFTWARE ID** is ineffective.
- **<SOFTWARE ID>**: shows the current software ID, user can modify and choose address in the range of 001~254
- **<HARDWARE ID>**: shows the current physical ID, it is decided by the DIP Switch only: user cannot modify via the OSD.
- **<BROADCAST ID>**: shows the current ID, The ID functions the same as dome's **<SOFTWARE/ HARDWARE ID>**, The dome works when receives any of those ID. The dome's broadcast ID is 255 and cannot be modified.
- **<BACK>**: return to upper menu.
- **<EXIT>**: exit the menu

4.3.2 DISPLAY SET UP

< Main Menu>→<SYSTEM>→<DISPLAY SETUP>

SITE NAME:	OFF
PRESET TITLE:	OFF
PATTERN NAME:	OFF
ZOOM:	OFF
ORIENTATATION:	OFF
TEMPRETURE:	OFF
ZONE NAME:	OFF
RTC TIME:	OFF
BACK	
EXIT	

- <SITE NAME>: Choose to display site name or not.
- <PRESET TITLE>: Choose to display preset position or not.
- <PATTERN NAME>: Choose to display pattern name or not
- <ZOOM>: Choose to display the current zoom or not.
- <ORIENTATION>: Choose to display the current lens direction or not.
- <TEMPRETURE>: Choose to display the current temperature or not.
- <ZONE NAME>: Choose to display the current zone name or not.
- <RTC TIME>: Choose to display the date and time or not.

4.3.3 DISPLAY BOOT-UP INFO

PROTOCOL: PELCO P D
BAUD RATE: 2400BPS
CAMERA ID: 001
CAMERA S/N: 0000000001
MODEL: -----
VERSION: V1.02
FAN SPEED: 6000RPM
CALL PRESET 1 TO BACK

<Main Menu>→<SYSTEM>→<DISPLAY BOOT-UP INFO>

Enter into Boot-up info displays to check current setup, call preset 1 to return to upper menu

4.3.4 PASSWORD

<Main Menu>→<SYSTEM>→<PASSWORD>

INPUT PASSWORD: *****
CONFIRM: *****
PSWD PROTECTION: OFF
BACK
EXIT

- <INPUT PASSWORD > (Factory default is 123456):

Use the joystick to enter submenu, then input the old password. If you forget the password after changing, please contact Provision-ISR support for recovery password.

The cursor will flash if the old password is correct, and then input the new

password. If the old Password input is not correct, you will not be able to change the password.

- <CONFIRM>:

Re-input the new password and confirm. If the input is not the same as the first time input, the system will remain the old password.

- <PSWD PROTECTION>:

Switch on / off the password protection. When it is <On> user need to enter password in order to access OSD menu or save preset through keyboard.

- <BACK>: return to upper menu.

- <EXIT>: exit the menu

4.3.5 SET DEFAULT

<Main Menu>→<SYSTEM>→<SET DEFAULT>

Select <SET DEFAULT> to restore factory default setting.

Please note: there is no confirmation prompt! Once entering the camera will immediately restore itself.

4.3.6 SYSTEM REBOOT

<Main Menu>→<SYSTEM>→<SYSTEM REBOOT>

Select <SYSTEM REBOOT> to reboot the dome.

4.3.7 RTC TIME SET

<Main Menu>→<SYSTEM>→<RTC TIME SET>

DATE Y/M/D:	00 00 00
TIME H: M: S:	00 00 00
BACK	
EXIT	

Use left and right keys to move the cursor to desired item, use up and down keys to change the current cursor value.

4.3.8 RTC RIME RUNNING

<Main Menu>→<SYSTEM>→<RTC TIMER RUNNING>

DATE Y/M/D:	00 00 00
TIME H: M: S:	00 00 00
ACTION:	PRESET 001
BACK	
EXIT	

- <DATE and TIME>: Setup time running time (24-hour)
- <ACTION>: Choose one function from <PRESET>, <ZONE>, <TOUR>, <PATTERN> to run.
- <BACK>: Back to the upper menu.
- <EXIT>: Exit the current menu.

4.4 LENS

<Main Menu>→<LENS>

ZOOM SPEED:	HIGH
DIGITAL ZOOM:	OFF
JOYSTICK AF/AI:	BOTH
AF RESUME TIME:	005
AI RESUME TIME:	005
DAY/NIGHT:	IR-CTR
CAMERA P/N:	AUTO
BACK	
EXIT	

- **<ZOOM SPEED>**: Set the zoom speed level to HIGH or LOW
- **<DIGITAL ZOOM>**: Turn On/Off the Digital Zoom.
- **<JOYSTICK AF/AI>**: Set up Auto Focus (AF), Auto Iris (AI) or Both

<BOTH>: Joystick movement triggers both auto focus and auto iris **<FOCUS>**:

Joystick movement triggers auto focus only

<IRIS>: Joystick movement triggers auto iris only.

<NONE>: Joystick movement triggers none of the functions.。

- **<AF RESUME TIME>**: This item sets the time to restore auto focus after focus is manually changed. The default setting is 005, options are:

[OFF] Never restore auto focus after switch to manual.

[001-255]The dome will start auto focus that number of seconds after user manually adjusts focus.

- **<AI RESUME TIME>**: This item sets the time to restore auto iris after iris is manually changed. The default setting is 005 seconds, options are:

[OFF]: Never restore auto iris after switch to manual.

[001-255]: The dome will start auto iris that number of seconds after user manually adjust iris.

- **<DAY/NIGHT>**: Set the dome color/ black & white mode. Color mode is suitable to work in daytime because it needs higher illumination. Light sensitivity of black & white mode is much higher. It is suitable to work at night without illumination but the video is black and white.

There are 4 options:

[AUTO]: The dome will automatically change modes according to the environment illumination.

[COLOR]: The dome is always in color mode.

[NIGHT]: The dome is always in Black and White mode.

[IR-CTL]: The dome is controlled by the IR lights sensor, when the IR lights opened, the mode auto change to Black and White.

- **<CAMERA P/N>:**

Show the current camera P/N (PAL/ NTSC), The PTZ can automatically detected some of the camera Signal mode. If not, please set manually.

4.5 CAMERA:

Important Note: Camera setting will vary between Z-22IR and Z-27IR.

For the Simple camera menu access <Main Menu>→<CAMERA>.

Simple Camera Menu:

WHITE BALANCE: AUTO
BLC MODE
BACK
EXIT

- **<WHITE BALANCE >**

White Balance is normally compensated for by the automatic white balance gain control. In some lighting conditions, user may want to manually adjust the red and blue settings for optimal viewing. There are 6 options:

[AUTO]: Auto White Balance (default setting).

[MANUAL]: Manually set the red and blue values, setup from 000 to 255.

[ATW]: Auto track White Balance.

[OPW]: Once touch White Balance

[OUTDOOR]: Suitable for outdoor use.

[INDOOR]: Suitable for indoor use.

- **<BLC MODE>**

If the backlight is bright, the objects in the center of the picture may appear

dark. The dome can auto adjust the brightness of the whole image according to the brightness of the center point. Thus backlight compensation can increase the brightness of the objects in the center of the picture.

Select<BLC SET>, and choose the right key to access the sub-menu as below

BLC QTY:	000
WDR:	OFF
BACK	
EXIT	

[BLC QTY]: Adjust the data of the BLC, choose from 000-255

[WDR]: ON and OFF the camera's WDR function (Not supported)

Advanced Camera Menu:

For advanced Menu, Call preset #69.

PLEASE NOTE: Scrolling and changing values in the advanced menu is done with different controls:

- 1) The controller joystick has effect.
- 2) Scrolling up and down is done by pressing IRIS+/IRIS-
- 3) Changing Values of the selected feature is done by pressing ZOOM+/ZOOM-

IMPORTANT!!! Changing any values except of in the <DSP SETTINGS> menu will result in the camera malfunctioning

FOCUS	AUTO
ID DISPLAY	OFF
CAM ID	1
PROTOCOL	VISCA
BAUD RATE	9600
485 CONTROL	NORMAL
LED 1	8
LED 2	15
<DSP SETTINGS>	
LANGUAGE	##
RESET	
EXIT	

DSP Settings:

SHUTTER	AUTO
WB MODE	AUTO
AGC	88
DNR	ON
BACKLIGHT	OFF
HLC LEVEL	48
MIRROR	OFF
BRIGHTNESS	8
SHARPNESS	8
<MASK SETTING>	
COLOR	8
EXIT	

- **<SHUTTER>**: Choosing between Auto and Manual
- **<WB MODE >**: White Balance is normally compensated for by the automatic white balance gain control. In some lighting conditions, user may want to manually adjust the red and blue settings for optimal viewing. There are 6 options:
 - **[AUTO]**: Auto White Balance (default setting).
 - **[MANUAL]**: Manually set the red and blue values, setup from 000 to 255.
 - **[ATW]**: Auto track White Balance.
 - **[OPW]**: Once touch White Balance
 - **[OUTDOOR]**: Suitable for outdoor use.
 - **[INDOOR]**: Suitable for indoor use.
- **<AGC>**: changing the value of AGC
- **<DNR>**: Turning digital noise reduction on/off
- **<BACKLIGHT>**: switching between OFF/BLC/HLC.
- **<HLC LEVEL>**: after choosing HLC in the backlight menu, you can change level of HLC effect.
- **<MIRROR>**: Turning Mirror effect ON/OFF
- **<BRIGHTNESS>**: Changing the brightness value.
- **<SHARPNESS>**: Changing the sharpness value.
- **<MASK SETTINGS>**: This mask setting it referring to the zoom module only and will not be effective in a PTZ.
- **<COLOR>**: Adjusting color levels

4.6 PAN/TILT

<Main Menu>→<PAN/TILT>

AUTO STOP TIME:	OFF
SPEED AMPLIFY:	OFF
PROPORTIONAL P/T:	ON
SET NORTH	
BACK	
EXIT	

- <AUTO STOP TIME>:

For some particular protocols, the dome will not stop moving even there is no operation on CCTV Tester. This menu sets the time after which the dome receives last control command.

[Off]: Disable this function

[001~255]: The time (second) that dome will stop moving without receiving any commands.

- <SPEED AMPLIFY>:

Some protocols' controlling speed is much lower, set <SPEED AMPLIFY> to accelerate domes movement. Options are as below:

[Off]: Disable this function

[01×~ 32×]: Speed amplify from 01~32x

Notice: The above two functions is not available at present

- <PROPORTIONAL P/T>:

The dome moves at a certain speed (degree per second). While zoomed in, the default movement speed may become too fast. This function decreases the dome movement speed while zoomed in for easier control on the dome.

- **<SET NORTH>:**

User can set orientation by using joystick to position north.

When select <SET NORTH>, following menu will pop-up.

CALL PRESET 1 TO RETURN
CONFIRM.

Adjust the lens to desired position and call preset 1 to confirm and return.

4.7 AUTO RUNNING

<Main Menu>→<AUTO RUNNING>

PRESET
TOUR
PATTERN
360° SCAN
ZONE
PARK TIME: 0S
PARK ACTION: OFF
BACK
EXIT

4.7.1 PRESET

<Main Menu>→<AUTO RUNNING>→<PRESET>

PRESET NUMBER: 001
TITLE: PRESET 001
SET CURRNET
REMOVE CURRENT
BACK
EXIT

In this function, the values of the pan/tilt positions will be stored in the desired memory slot so that you will be able to call it when in need. 128 presets can be saved. It could also setup by shortcuts of control system.

- <PRESET NUMBER>

Display current preset number, the value ranges from 001to 064 (Except preset 33 and 34) and 101 to 164

Note: Presets 33/34 has other functions in PELCO protocols, so the user cannot save any information on it.

- <TITLE>

To set current preset title.16-bit can be set by the number 0 to 9 and the letters A-Z of any combination.

- <SET CURRENT>

Select this item to set the preset position and zoom. The following menu will pop-up when < Set Current> is selected.

CALL PRESET 1 TO BACK
CONFIRM

Move to the desired position and zoom to a suitable level, call preset 1 to save the current preset and return.

- < REMOVE CURRENT>: Delete the preset with the number and title display above.

4.7.2 TOUR

<Main Menu> → <AUTO RUNNING> → <TOUR>

TOUR NUMBER: 001
DWELL: 003
EDIT
RUN
BACK
EXIT

The dome camera will run repeatedly as the given sequence of presets at certain dwell time by one command. Max. 4 tours available (27preset/tour).

- <TOUR NUMBER>: Set current tour number from 001~004.
- <DWELL>: Set the default dwell time from 000~255 seconds for each preset. User can still set independent dwell time for each preset when editing the tour.
- <EDIT>: Edit presets and corresponding dwell time in a tour as follows.

PRESET-DWELL

000-003 000-003 000-003

000-003 000-003 000-003

000-004 000-003 000-003

000-003 000-003 000-003

000-003 000-003 000-003

000-003 000-003 000-003

000-003 000-003 000-003

000-003 000-003 000-003

000-003 000-003 000-003

SAVE AND BACK

CANCEL AND BACK

There are three group numbers, the left side is preset number, the right side is dwell time; tour from left to right, up to down in the order to run preset; when the preset number is set to < 000>, the current preset is skipped;

- <SAVE AND BACK>: Save the tour and back.
- <CANCEL AND BACK>: Quit without saving and then exit to the upper menu.

4.7.3 PATTERN

<Main Menu> → <AUTO RUNNING> → <PATTERN>

PATTERN NUMBER: 001

RECORD

RUN

BACK

EXIT

There are max 4 patterns, and the dome camera can record all regular operation in 3 minutes at least. The command will drive the speed dome runs as given route repeatedly.

- <**PATTERN NUMBER**>: Set current pattern number from 001~004.
- <**RECORD**>: Edit the current pattern's running route and record all operation in 3 minutes at least.

CALL PRESET 1 TO BACK
CONFIRM... ..
180S
000%
RECORD.....

[180S]: Remaining record time.

[000%]: The recording space. The record time will decrease while the space increases. User can call preset 1 to back to the upper menu.

Notice: Any of the time and space is finished; even not call preset 1, the recording is end and exit and saved the recording

- <**RUN**>: Run current pattern repeatedly until other command received.

4.7.4 360° SCAN

<Main Menu> → <AUTO RUNNING> → <360° scan>

360° SCAN DWELL: 0S
PAN SPEED: HIGH
RUN
BACK
EXIT

<360° SCAN DWELL>:

[0S]: 360 continuous scan

[5S]: 90 intermittent scan, then dwell on 5s, the dome will continuously run at the given route repeatedly until receiving new command.

[10S]: 90 intermittent scan, then dwell on 10s, the dome will continuously run at the given route repeatedly until receiving new command.

- **<PAN SPEED>**

High: 20/S

Middle: 15/S

Low: 6/S

Auto: Do as the camera's proportional P/T speed.

- **<RUN>**

The dome will continuously run at the given route repeatedly until receiving new command.

4.7.5 ZONE

<Main Menu> → <AUTO RUNNING> → <ZONE>

TITLE: RGEIN
LEFT LIMIT
RIGHT LIMIT
PAN SPEED: HIGH
REMOVE CURRENT
RUN
BACK
EXIT

- **<TITLE>**: To set current zone Name, 16-bit can be set up by the number 0-9 and the letters A-Z of any combination
- **<LEFT LIMIT>**: Set the right edge of region <A>

CALL PRESET 1 TO BACK
 CONFIRM.

Move the camera left limit position to confirm and return. The position of the left limit position will now be marked on the menu screen.

- **<RIGHT LIMIT>**: Set the right edge of region (B)

CALL PRESET 1 TO BACK
 CONFIRM.

Move the camera right limit position to confirm and return. The position of the right limit position will now be marked on the menu screen.

- **<PAN SPEED>**

High: 20/S

Middle: 15/S

Low: 6/S

Auto: Do as the camera's proportional P/T speed.

- **<REMOVE CURRENT>**: Delete current zone
- **<RUN>**: Start current zone scan repeatedly before receiving new command.

Note:

PTZ default tour scan direction clockwise direction starting from the left limit. If the user finds out the route is wrong, he could call number 82 preset again, when the tour scan run to the critical point, PTZ will scan in the reverse direction.

4.7.6 <PARK TIME>

The camera will run certain function automatically if the dome is not receiving any command for the specified time.

0S: PARK TIME OFF

60S: PARK TIME ON, 60S

120S: PARK TIME ON, 120S

4.7.7 <RUNNING TYPE>

Choose the type of action that will take place on activation of Park: users can choose between: Preset, Tour or Pattern.

Note: Time running available only if <IDLE TIME> and <RUNNING TYPE> are both ON state.

4.8 PRIVACY MASK

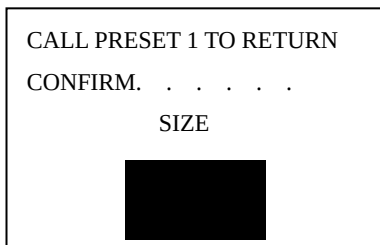
<Main Menu> → <PRIVACY MASK>

MASK NUMBER: 001
MASK SETUP
REMOVE MASK
REMOVE ALL MASK
BACK
EXIT

- <MASK NUMBER>: Set and edit the current mask zone number from 001-008
- <PRIVACY MASK SETUP>: Enter privacy mask setup to edit and confirm.

CALL PRESET 1 TO RETURN
CONFIRM.....

Call preset 1 to confirm your setup and then you will see below sub-menu:



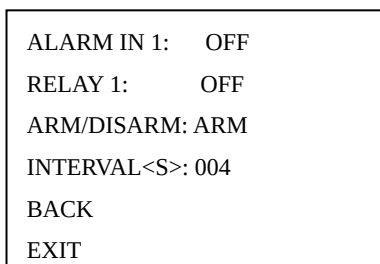
Using up, down, left and right key to adjust the size of the mask, then call preset 1 to confirm and return.

- <REMOVE CURRENT MASK>: Remove current mask, then the black lump will disappear.
- <REMOVE ALL MASK>: Remove all mask, then all the black lump will disappear.

4.9 ALARM

(Optional function, standard camera do not include alarm)

<Main Menu> → <ALARM>



Using an external alarm sensor can activate the corresponding function to achieve the auto monitoring purpose. The dome camera supports one way alarm input (grounded connection available) and one way alarm output. Any auto run functions can be set and called.

Wiring: ALin+ alarm input positive, ALin-alarm input com polarity; ALoutA

means alarm out on A side, ALoutB means alarm out on B side.

Note: The alarm has highest priority. For example, if Cruise set to run at 12:00, and at the same time an alarm signal input, the dome camera would respond to the alarm first.

- <ALARM IN 1>: Set the alarm input and the dome's corresponding action. Following options are applicable:
 - [Off] or choose one function of <Preset>, <Tour>, <Pattern>, and <Auto>: when alarm.
- <RELAY 1>:
 - ◆ [OFF]: Turn off the alarm output, the alarm will not be activated.
 - ◆ [ON]: Turn on the alarm output, the alarm will give an alarm signal when activated.
- <ARM/DISARM>:
 - ◆ <ARM> The alarm system effective.
 - ◆ <DISARM> The alarm system is not effective.
- <INTERVAL >: Set the alarm interval time from 004~255 seconds.

4.10 LANGUAGE

<Main Menu> → <LANGUAGE >

LANGUAGE: English

BACK

EXIT

<Language>, move the cursor up and down to choose language, press the left direction key to confirm.

4.11 IR SET

<Main Menu> → <IR SET>

IR MODE: AUTO
IR ZOOM SET 1: 006
IR ZOOM SET 2: 010
PRESENT LUX: 010
IR START SET: 006
IR CLOSE SET: 012
BACK
EXIT

- <IR MODE >: AUTO/OPEN/CLOSE

<AUTO>: Default. When the detected signal value from the IR sensitive below the value of IR Start, the IR dome automatically open the IR lights.

<OPEN>: Open the IR lights forcibly (No influence from the detected signal value).

<CLOSE>: Close the IR lights forcibly (No influence from the detected signal value).

Notice: The function only effective in <LENS> → <DAY/NIGHT> → <IR CHANGE> mode.

- <IR ZOOM SET 1>: 006 (The second section IR Zoom value)*
- <IR ZOOM SET 2>: 010 (The third section IR Zoom value)*
- <PRESENT LUX>: Display the current illumination value (Unit: Lux)
cannot be edited
- <IR START SET>: 006 (Default Open IR light illumination value), Range:
0-8 Unit: Lux
<IR CLOSE SET>: 012 (Close IR light illumination value) Range: 12-20 Unit:
Lux

APPENDIX I: DIP SWITCH SETTING

DIP Switch consists of 8 numbers from 1-8, use 8421 binary cod, max 255 address. When the switch is in the “ON” position, the number from 1-8 corresponding to 1, 2, 4, 8, 32, 64, 128. For example, if you set 1, 3, 5, 7 switch to the “ON” position, the corresponding address will be $1+4+16+64=85$, please refer to the blow details.

Sheet 1 (1=ON, 0=OFF)

DIP switch	K1 ID Switch(number 1- number 8)	DIP switch	K1 ID Switch(number 1- number 8)
Address	1 2 3 4 5 6 7 8	Address	1 2 3 4 5 6 7 8
1	1 0 0 0 0 0 0 0	2	0 1 0 0 0 0 0 0
3	1 1 0 0 0 0 0 0	4	0 0 1 0 0 0 0 0
5	1 0 1 0 0 0 0 0	6	0 1 1 0 0 0 0 0
7	1 1 1 0 0 0 0 0	8	0 0 0 1 0 0 0 0
9	1 0 0 1 0 0 0 0	10	0 1 0 1 0 0 0 0
11	1 1 0 1 0 0 0 0	12	0 0 1 1 0 0 0 0
13	1 0 1 1 0 0 0 0	14	0 1 1 1 0 0 0 0
15	1 1 1 1 0 0 0 0	16	0 0 0 0 1 0 0 0
17	1 0 0 0 1 0 0 0	18	0 1 0 0 1 0 0 0
19	1 1 0 0 1 0 0 0	20	0 0 1 0 1 0 0 0
21	1 0 1 0 1 0 0 0	22	0 1 1 0 1 0 0 0
23	1 1 1 0 1 0 0 0	24	0 0 0 1 1 0 0 0
25	1 0 0 1 1 0 0 0	26	0 1 0 1 1 0 0 0
27	1 1 0 1 1 0 0 0	28	0 0 1 1 1 0 0 0
29	1 0 1 1 1 0 0 0	30	0 1 1 1 1 0 0 0
31	1 1 1 1 1 0 0 0	32	0 0 0 0 0 1 0 0
33	1 0 0 0 0 1 0 0	34	0 1 0 0 0 1 0 0

35	1 1 0 0 0 1 0 0	36	0 0 1 0 0 1 0 0
37	1 0 1 0 0 1 0 0	38	0 1 1 0 0 1 0 0
39	1 1 1 0 0 1 0 0	40	0 0 0 1 0 1 0 0
41	1 0 0 1 0 1 0 0	42	0 1 0 1 0 1 0 0
43	1 1 0 1 0 1 0 0	44	0 0 1 1 0 1 0 0
45	1 0 1 1 0 1 0 0	46	0 1 1 1 0 1 0 0
47	1 1 1 1 0 1 0 0	48	0 0 0 0 1 1 0 0
49	1 0 0 0 1 1 0 0	50	0 1 0 0 1 1 0 0
51	1 1 0 0 1 1 0 0	52	0 0 1 0 1 1 0 0
53	1 0 1 0 1 1 0 0	54	0 1 1 0 1 1 0 0
55	1 1 1 0 1 1 0 0	56	0 0 0 1 1 1 0 0
57	1 0 0 1 1 1 0 0	58	0 1 0 1 1 1 0 0
59	1 1 0 1 1 1 0 0	60	0 0 1 1 1 1 0 0
61	1 0 1 1 1 1 0 0	62	0 1 1 1 1 1 0 0
63	1 1 1 1 1 1 0 0	64	0 0 0 0 0 0 1 0
65	1 0 0 0 0 0 1 0	66	0 1 0 0 0 0 1 0
67	1 1 0 0 0 0 1 0	68	0 0 1 0 0 0 1 0
69	1 0 1 0 0 0 1 0	70	0 1 1 0 0 0 1 0
71	1 1 1 0 0 0 1 0	72	0 0 0 1 0 0 1 0
73	1 0 0 1 0 0 1 0	74	0 1 0 1 0 0 1 0
75	1 1 0 1 0 0 1 0	76	0 0 1 1 0 0 1 0
77	1 0 1 1 0 0 1 0	78	0 1 1 1 0 0 1 0
79	1 1 1 1 0 0 1 0	95	1 1 1 1 1 0 1 0
81	1 0 0 0 1 0 1 0	82	0 1 0 0 1 0 1 0
83	1 1 0 0 1 0 1 0	84	0 0 1 0 1 0 1 0
85	1 0 1 0 1 0 1 0	86	0 1 1 0 1 0 1 0
87	1 1 1 0 1 0 1 0	88	0 0 0 1 1 0 1 0

89	1 0 0 1 1 0 1 0	90	0 1 0 1 1 0 1 0
91	0 0 1 1 1 0 1 0	92	0 0 1 1 1 0 1 0
93	1 0 1 1 1 0 1 0	94	0 1 1 1 1 0 1 0
95	1 1 1 1 1 0 1 0	96	0 0 0 0 0 1 1 0
97	1 0 0 0 0 1 1 0	98	0 1 0 0 0 1 1 0
99	1 1 0 0 0 1 1 0	100	0 0 1 0 0 1 1 0
101	1 0 1 0 0 1 1 0	102	0 1 1 0 0 1 1 0
103	1 1 1 0 0 1 1 0	104	0 0 0 1 0 1 1 0
105	1 0 0 1 0 1 1 0	106	0 1 0 1 0 1 1 0
107	1 1 0 1 0 1 1 0	108	0 0 1 1 0 1 1 0
109	1 0 1 1 0 1 1 0	110	0 1 1 1 0 1 1 0
111	1 1 1 1 0 1 1 0	112	0 0 0 0 1 1 1 0
113	1 0 0 0 1 1 1 0	114	0 1 0 0 1 1 1 0
115	1 1 0 0 1 1 1 0	116	0 0 1 0 1 1 1 0
117	1 0 1 0 1 1 1 0	118	0 1 1 0 1 1 1 0
119	1 1 1 0 1 1 1 0	120	0 0 0 1 1 1 1 0
121	1 0 0 1 1 1 1 0	122	0 1 0 1 1 1 1 0
123	1 1 0 1 1 1 1 0	124	0 0 1 1 1 1 1 0
125	1 0 1 1 1 1 1 0	126	0 1 1 1 1 1 1 0
127	1 1 1 1 1 1 1 0	128	0 0 0 0 0 0 0 1
129	1 0 0 0 0 0 0 1	130	0 1 0 0 0 0 0 1
131	1 1 0 0 0 0 0 1	132	0 0 1 0 0 0 0 1
133	1 0 1 0 0 0 0 1	134	0 1 1 0 0 0 0 1
135	1 1 1 0 0 0 0 1	136	0 0 0 1 0 0 0 1
137	1 0 0 1 0 0 0 1	138	0 1 0 1 0 0 0 1
139	1 1 0 1 0 0 0 1	140	0 0 1 1 0 0 0 1
141	1 0 1 1 0 0 0 1	142	0 1 1 1 0 0 0 1

143	1 1 1 1 0 0 0 1	144	0 0 0 0 1 0 0 1
145	1 0 0 0 1 0 0 1	146	0 1 0 0 1 0 0 1
147	1 1 0 0 1 0 0 1	148	0 0 1 0 1 0 0 1
149	1 0 1 0 1 0 0 1	150	0 1 1 0 1 0 0 1
151	1 1 1 0 1 0 0 1	152	0 0 0 1 1 0 0 1
153	1 0 0 1 1 0 0 1	154	0 1 0 1 1 0 0 1
155	1 1 0 1 1 0 0 1	156	0 0 1 1 1 0 0 1
157	1 0 1 1 1 0 0 1	158	0 1 1 1 1 0 0 1
159	1 1 1 1 1 0 0 1	160	0 0 0 0 0 1 0 1
161	1 0 0 0 0 1 0 1	162	0 1 0 0 0 1 0 1
163	1 1 0 0 0 1 0 1	164	0 0 1 0 0 1 0 1
165	1 0 1 0 0 1 0 1	166	0 1 1 0 0 1 0 1
167	1 1 1 0 0 1 0 1	168	0 0 0 1 0 1 0 1
169	1 0 0 1 0 1 0 1	170	0 1 0 1 0 1 0 1
171	1 1 0 1 0 1 0 1	172	0 0 1 1 0 1 0 1
173	1 0 1 1 0 1 0 1	174	0 1 1 1 0 1 0 1
175	1 1 1 1 0 1 0 1	176	0 0 0 0 1 1 0 1
177	1 0 0 0 1 1 0 1	178	0 1 0 0 1 1 0 1
179	1 1 0 0 1 1 0 1	180	0 0 1 0 1 1 0 1
181	1 0 1 0 1 1 0 1	182	0 1 1 0 1 1 0 1
183	1 1 1 0 1 1 0 1	184	0 0 0 1 1 1 0 1
185	1 0 0 1 1 1 0 1	186	0 1 0 1 1 1 0 1
187	1 1 0 1 1 1 0 1	188	0 0 1 1 1 1 0 1
189	1 0 1 1 1 1 0 1	190	0 1 1 1 1 1 0 1
191	1 1 1 1 1 1 0 1	192	0 0 0 0 0 0 1 1
193	1 0 0 0 0 0 1 1	194	0 1 0 0 0 0 1 1
195	1 1 0 0 0 0 1 1	196	0 0 1 0 0 0 1 1

197	1 0 1 0 0 0 1 1	198	0 1 1 0 0 0 1 1
199	1 1 1 0 0 0 1 1	200	0 0 0 1 0 0 1 1
201	1 0 0 1 0 0 1 1	202	0 1 0 1 0 0 1 1
203	1 1 0 1 0 0 1 1	204	0 0 1 1 0 0 1 1
205	1 0 1 1 0 0 1 1	206	0 1 1 1 0 0 1 1
207	1 1 1 1 0 0 1 1	208	0 0 0 0 1 0 1 1
209	1 0 0 0 1 0 1 1	210	0 1 0 0 1 0 1 1
211	1 1 0 0 1 0 1 1	212	0 0 1 0 1 0 1 1
213	1 0 1 0 1 0 1 1	214	0 1 1 0 1 0 1 1
215	1 1 1 0 1 0 1 1	216	0 0 0 1 1 0 1 1
217	1 0 0 1 1 0 1 1	218	0 1 0 1 1 0 1 1
219	1 1 0 1 1 0 1 1	220	0 0 1 1 1 0 1 1
221	1 0 1 1 1 0 1 1	222	0 1 1 1 1 0 1 1
223	1 1 1 1 1 0 1 1	224	0 0 0 0 0 1 1 1
225	1 0 0 0 0 1 1 1	226	0 1 0 0 0 1 1 1
227	1 1 0 0 0 1 1 1	228	0 0 1 0 0 1 1 1
229	1 0 1 0 0 1 1 1	230	0 1 1 0 0 1 1 1
231	1 1 1 0 0 1 1 1	232	0 0 0 1 0 1 1 1
233	1 0 0 1 0 1 1 1	234	0 1 0 1 0 1 1 1
235	1 1 0 1 0 1 1 1	236	0 0 1 1 0 1 1 1
237	1 0 1 1 0 1 1 1	238	0 1 1 1 0 1 1 1
239		240	0 0 0 0 1 1 1 1

APPENDIX II Shortcuts Key Chart

Shortcut Key	Function (Set Preset)
Set #71 preset	Proportional P/T OFF
Set #73 preset	0S Park time ON
Set #74 preset	60S Park time ON
Set #75 preset	120S Park time ON
Set #76 preset	Dome restart
Set #77 preset	Restore Factory Setting
Set #78 preset	360° scan and tour scan speed is automatic
Set #79 preset	360° scan and tour scan speed is high, 20°/sec
Set #80 preset	360° scan and tour scan speed is middle, 15°/sec
Set #81 preset	360° scan and tour scan speed is low, 6°/sec
Set #82 preset	Delete left/right limit
Set #84 preset	Record Pattern scan 1
Set #85 preset	Record Pattern scan 2
Set #86 preset	Record Pattern scan 3
Set #87 preset	Record Pattern scan 4
Set #88 preset	Set cruise 1
Set #89 preset	Set cruise 2
Set #90 preset	Set cruise 3
Set #91 preset	Set cruise 4
Set #94 preset	Set color-to-black function
Set #95 preset	Open main menu
Set #97 preset	Set 360°scan, the preset-dwell: 0S
Set #98 preset	Set 360°scan, the preset-dwell: 5S
Set #99 preset	Set 360°scan, the preset-dwell: 10S

Shortcut Key	Function (Call Preset)
Call #71 preset	Proportional P/T ON
Call #82 preset	Start Cruise scan and switch the cruise scan direction
Call #83 preset	Delete all Presets
Call #84 preset	Start Pattern 1
Call #85 preset	Start Pattern 2
Call #86 preset	Start Pattern 3
Call #87 preset	Start Pattern 4
Call #88 preset	Call cruise 1 (default number 1~16 preset)
Call #89 preset	Call cruise 2 (default number 17~32 preset)
Call #90 preset	Call cruise 3 (default number 35~48 preset)
Call #91 preset	Call cruise 4 (default number 49~64 preset)
Call #92 preset	Set left limit Position
Call #93 preset	Set right limit Position
Call #94 preset	Camera IR-CUT switch
Call #95 preset	Open main menu
Call #97 preset	Call all valid presets cruise
Call #98 preset	Call 360°scan
Call #99 preset	Preset Error Correction

APPENDIX III Trouble Shooting

Troubles	Reason	Solution
No action when power on	1. The power supply is not connected correctly. 2. The fuse is broken.	1. Correct the connection. 2. Check the power supply LED power indicator. 3. Replace the fuse.
Self-testing and image are normal but the dome is out of control	1. The dome DIP switch setting is incorrect. 2. RS485 cable is disconnected or reversed. 3. Control device is not properly configured.	1. Confirm DIP settings on camera power up screen. 2. Reset the DIP Switch according to the DIP switch chart. 3. Check the wiring. 4. Check the control device settings
Some function is out of control	1. RS485 communication signal is not balance. 2. Control protocol is not compatible.	1. Connect 120Ω resistor to the RS485 line. 2. Change protocol type.
Unclear image	1. Focus is in manual state. 2. Digital Zoom is on and in full ratio (If applicable) 3. Dome cover is dirty.	1. Reset the focus mode to Auto. 2. Cancel/reduce digital zoom. 3. Clean the dome cover.
No night vision	1. Camera is in Color mode. 2. backlight on the top or back of the dome camera	1. Reset the day/night function to Auto. 2. Remove the direct light source.



Now you can see!

*Ultra-Z IR PTZ gives you even more of everything:
It is faster, More accurate, Easier for installation and
its video Performance is better than ever even in
complete darkness!*